LENNOX™

HEARTH PRODUCTS

INSTALLATION AND OPERATION INSTRUCTIONS

DAVE LENNOX signature™ COLLECTION

Vent-Free Millivolt Dual-Listed Gas Log Sets

Gas Train Models:	Log Set Models:
LSVFSD-NG	LSVFSD-18 Logs
LSVFSD-LP	LSVFSD-24 Logs
Log Sets Sold Separately	LSVFSD-30 Logs

P/N 850,051M Rev. B, 11/2007

Installer: Leave This Manual With The Appliance.
Consumer: Retain This Manual For Future Reference.

In the Commonwealth of Massachusetts:
- Installation must be performed by a licensed plumber or gas fitter
- See Table of Contents for location of additional Commonwealth of Massachusetts requirements

Tested & Listed By O-T-L Beaverton Oregon USA c US
OMNI-Test Laboratories, Inc.
Report No.116-L-49-5

Shadowdance™ Series

⚠ WARNINGS

- Hot! Do not touch! This appliance will be hot during operation and will retain heat for a while after shutting off the appliance. Severe burns may result.
- Carefully supervise children in the same room as appliance.
- Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information consult a qualified installer, service agency or the gas supplier.
- Do not build a wood fire. Do not burn wood or other material in these appliances.
- Carefully review the instructions supplied with the decorative type unvented room heater for the minimum fireplace size requirement. Do not install the appliance in the fireplace, unless the fireplace meets the minimum dimensions required for the installations (see *Page 3)*.
- This is an unvented gas log appliance. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. Refer to Combustion and Ventilation Air Section on *Page 5*.
- Important: Read and understand these instructions completely before installing your unvented room heaters.
- This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases. If the gas supply differs, DO NOT INSTALL the appliance. Contact your dealer to obtain the correct appliance.
- This appliance may be installed in an aftermarket, permanently located, manufactured (mobile) home, where not prohibited by local codes.
- Lennox™ vent-free gas logs are designed for use as a supplemental heater. They are not intended for continuous use as a primary heat source.

WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

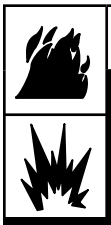
WHAT TO DO IF YOU SMELL GAS:

- Do not light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow your gas supplier's instructions.
- If your gas supplier cannot be reached, call the fire department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

IMPORTANT SAFETY AND WARNING INFORMATION

READ THIS MANUAL IN ITS ENTIRETY AND UNDERSTAND THESE RULES TO FOLLOW FOR SAFETY.



⚠ WARNINGS

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- **Children and adults should be alerted to the hazard of high surface temperature and should stay away to avoid burns or clothing ignition.**
- **Do not place clothing or other materials on or near the heater.**
- **Young children should be carefully supervised when they are in the same room with the appliance.**
- **Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.**
- **Any change to this heater or its operating controls can be dangerous. Improper installation or use of this appliance can cause serious injury or death from fire, burns, explosion or carbon monoxide poisoning.**
- **Carbon Monoxide Poisoning: Early signs of carbon monoxide poisoning are similar to the flu with headaches, dizziness and/or nausea. If you have these signs, obtain fresh air immediately. Have the Vent-Free Gas Heater serviced by a qualified technician as it may not be operating correctly. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung disease or anemia, those under the influence of alcohol, and those at high altitudes.**
- **Any safety screen or guard removed for servicing an appliance must be replaced and/or closed prior to operating the heater.**
- **Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is important that control compartments, burners and circulating air passageways of the appliance be kept clean.**
- **This appliance is for installation only in a solid-fuel burning masonry or UL 127 factory-built fireplace or in a listed ventless firebox enclosure. It has been design certified for these installations. Exception: DO NOT install this appliance in a factory-built fireplace that includes instructions stating it has not been tested or should not be used with unvented gas logs.**

⚠ WARNINGS

- **Allow the appliance to cool before servicing. Always shut off any electricity or gas to the appliance while performing service work.**
- **The appliance and its individual shut-off valve must be disconnected from the gas supply piping system while performing any tests of the gas supply piping system at test pressures equal to or less than 1/2 psig.**
- **This appliance must not be operated without a fireplace screen installed. Fireplace screens must not impair the free flow of combustion air to the appliance.**
- **Failure to comply with the installation and operation instructions provided in this document will result in an improperly installed and operating appliance, voiding its warranty.**
- **The appliance must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig.**
- **Keep heater area clear and free from combustible materials, gasoline and other flammable vapors and liquids.**
- **Do not use this room heater if any part has been under water. Immediately call a qualified service technician to inspect the room heater and to replace any part of the control and any gas control which has been under water.**
- **Ensure that the appliance is clean when operating. Excessive dust accumulation on the burner and/or logs will increase the amount of carbon monoxide formation and could lead to the formation of soot, carbon monoxide poisoning and sickness or death.**
- **Maintain minimum clearances.**
- **Do not burn solid fuels in any fireplace equipped with this gas appliance.**
- **Do not allow fans to blow directly into the fireplace. Avoid any drafts that alter burner flame patterns.**
- **Do not install the appliance in a sleeping room or bathroom.**
- **The installation must conform with local codes or, in the absence of local codes, with the National Fuel gas Code, ANSI Z223.1/NFPA 54-latest edition.**
- **Input ratings are shown in BTU per hour and are for elevations up to 4500 feet. When installing any vent-free appliance at elevations above 4500 feet, nuisance pilot outages may occur.**
- **This appliance is intended for supplemental heating.**

CONGRATULATIONS ON THE PURCHASE OF YOUR NEW GAS APPLIANCE MANUFACTURED BY LENNOX HEARTH PRODUCTS.

When you purchased your new gas-log heaters, you joined the ranks of thousands of individuals whose answer to their home heating needs reflects their concern for efficiency and our environment. We extend our continued support to help you achieve the maximum benefit and enjoyment available from your new gas-log heater. It is our goal at Lennox Hearth Products to provide you, our valued customer, with an appliance that will ensure years of trouble-free warmth and pleasure.

Thank you for selecting a Lennox Hearth Products gas-log heater as the answer to your supplemental home heating needs.

Sincerely, All of us at Lennox Hearth Products

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This installation manual will help you obtain a safe, efficient, dependable installation for your appliance.

PLEASE READ AND UNDERSTAND THESE INSTRUCTIONS BEFORE BEGINNING YOUR INSTALLATION

NATIONAL FIREPLACE INSTITUTE NFI CERTIFIED www.nficertified.org

We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

NOTE: DIAGRAMS AND ILLUSTRATIONS ARE NOT TO SCALE.

PACKAGING LIST

The gas train models LSVFSD-NG and LSVFSD-LP are packaged with the following:

1 - One base/grate assembly
2 - One bag of lava rock
3 - One damper clamp
4 - One literature package, which consists of the installation and operation manual and warranty

Log sets are sold separately (see ***Page 15*** for ordering information)

INTRODUCTION

These Gas Log Appliances incorporate unitized ceramic fiber logs which provides some glow realistically when the appliance is operating.

The gas log sets covered in this document are heater rated units. These units are equipped with a millivolt gas valve. The control knob is set to the desired position, which maintains a continuous gas burning rate.

A spark ignition system (piezo) allows the gas pilot to be lit without the use of matches or batteries and permits operation of the heater during a power outage.

GENERAL INFORMATION

These Dual-Listed Gas Log Appliances are equipped with a specially designed pilot utilizing an oxygen depletion sensor (ODS) which responds to the amount of oxygen available in the room and shuts the heater off before the oxygen level drops below 18%. The pilot can be relit only when fresh air is available. Refer to the Combustion and Ventilation Air section.

These appliances are approved to be installed into an existing masonry fireplace (built to UBC 37, Masonry Standards) or factory built solid fuel, wood burning fireplace (listed to UL 127, Factory Built Fireplace Standards) or a built-in Vent-Free Firebox (listed to Ventless Firebox Enclosures for Gas-Fired Unvented Decorative Room Heaters to ANSI Z21.91). Any outside air ducts and/or ash dumps in the fireplace shall be permanently closed at time of appliance installation. See *Figure 1* for the minimum size requirements of the existing firebox.

See *Figure 1* for the minimum size requirements of the existing firebox in which the gas logs will be installed.

Log Set	Height (A)	Depth (B)	Width Front (C)	Width Rear (D)
LSVFSD-18 Logs	19"	14"	30"	20-1/2"
LSVFSD-24 Logs	19"	14"	30"	24-1/2"
LSVFSD-30 Logs	19"	14"	38"	24-1/2"

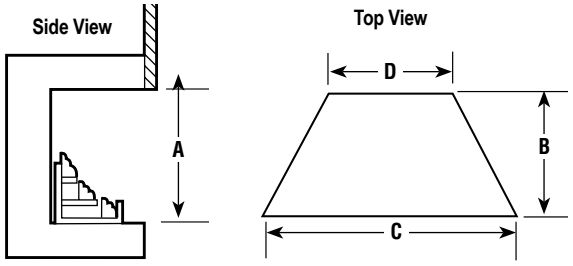


Figure 1 - Minimum Fireplace (Firebox) Size

SEE TABLE 3 ON PAGE 16 FOR BTU INPUT AND GAS PRESSURE REQUIREMENTS

Do not install these Dual-Listed Gas Log Appliances in a bedroom or a bathroom as all units exceed maximum allowable BTU/hr input of 10,000.

Tools and Supplies Normally Required

External regulator (Propane models only)
Manual shut-off valve
Sediment trap
Piping complying with local codes
Pipe compound
Pipe wrench
Tee joint
Screwdriver

Burn-in Period

During the first few times of operation of this appliance there will be some odor due to the curing of the paint and burning off of lubricants used in the manufacturing process. We recommend that you open windows and ventilate the house during the initial burns. The paint emits non-toxic odors during this process.

Depending on your use, the burn-in period may take a few hours or a few days. Also if you have a sensitive sense of smell you may notice slight odors during operating after the burn-in period is over.

KEEP YOUR HOUSE WELL VENTILATED DURING THE BURN-IN PERIOD. THE ODOR AND HAZE EMITTED DURING THE BURN-IN PERIOD CAN BE QUITE NOTICEABLE AND MAY SET OFF A SMOKE DETECTOR. MAKE SURE SMOKE DETECTORS ARE NOT TOO CLOSE TO THE FIREBOX (CHECK WITH YOUR LOCAL CODE FOR ALLOWABLE DISTANCES).

CODES

Adhere to all local codes or in their absence the latest edition of The National Fuel Gas Code ANSI Z223.1 or NFPA 54-latest edition which can be obtained from The American National Standards Institute, Inc. (1430 Broadway, New York, NY, 10018) or National Fire Protection Association, Inc. (Batterymarch Park, Quincy, MA, 02269).

State or local codes may only allow operation of this appliance in a vented configuration. Check your state or local codes.

Seller of unvented propane or natural gas-fired supplemental room heaters shall provide to each purchaser a copy of 527 CMR 30 upon sale of the unit (This is a standard Unvented Propane or Natural Gas-Fired Space Heaters).

Shadowdance™ Gas Log appliances are certified by OMNI-Test Laboratories to ANSI Z21.11.2 unvented room heaters standard. These gas log appliances may be used as a space heat source for a room in conjunction with an approved unvented firebox.

Additionally, these units are design certified by OMNI-Test Laboratories to ANSI 21.60 / CSA 2.26 Decorative Appliance. For installation in solid-fuel burning fireplaces.

As such, these units may be used as a vented gas log set in any wood-burning fireplace that has been properly constructed to code, and in the case of factory built fireplaces, installed in compliance with manufacturers listing and installation instruction.

Use of the log sets covered by this manual in a properly vented wood-burning fireplace which has had the damper blocked open as detailed below, preclude consideration of the combustion and ventilation air and clearance to combustible restrictions discussed herein.

When local codes require the damper to be fixed open, a damper stop must be installed to prevent full closure of the fireplace damper and provide a minimum 29 square inch flue opening at all times.

This appliance is for installation in a solid fuel burning fireplace (masonry fireplace or manufactured fireplace) with a working flue and constructed of noncombustible material.

The minimum permanent free opening of the fireplace chimney or chimney damper must be at least 29 sq. inches based upon a minimum chimney height of at least 15 feet. Chimney damper must be fixed in a manner to maintain permanent free opening at all times.

NEW YORK CITY, NEW YORK (MEA)

Installation of these gas log heaters are approved in the state of New York and are prohibited in New York City.

Requirements for the Commonwealth of Massachusetts

Note: **The following requirements reference various Massachusetts and national codes not contained in this document.**

Un-vented Room Heaters shall be installed in accordance with 527 CMR 30.00 and 248 CMR 3.00 through 7.00:

(a) Permits and Inspections: In addition to complying with 248 CMR 3.05 the following requirements must be satisfied:

1. A permit shall be obtained from the head of the fire department and the local or state gas inspector having jurisdiction for the installation of all unvented propane or natural gas-fired space/room heaters.
2. The permits shall be conditioned upon final inspection and approval of installation by the head of the fire department and the local or state gas inspector having jurisdiction.
3. A copy of the manufacturer's installation/operating literature shall be submitted with each permit application.
4. Before operation, the Head of the Fire Department and the local or state gas inspector shall inspect the installation for compliance with 527 CMR (Board of Fire Prevention Regulations) and 248 CMR (Board of State Examiners of Plumbers and Gas Fitters).
5. A final inspection by the state or local gas inspector of the unvented space/room heater shall not be performed until proof is provided that the head of the fire department having jurisdiction has granted a permit.

(b) Unvented propane or natural gas-fired space/room heaters shall conform to ANSI Z21.11.2, be equipped with an oxygen depletion safety (ODS) shutoff system and be Product-approved in accordance with 248 CMR.

(c) Unvented propane or natural gas-fired space/room heaters shall be installed in accordance with their listings and the manufacturer's instructions. Proper clearances to combustibles shall be maintained. In no case shall the clearances be such as to interfere with combustion air and accessibility.

(d) Installations shall be of a permanent type, with a permanently piped fuel supply in accordance with 248 CMR. LPG appliances shall be subject to the storage requirements in accordance with 527 CMR 6.00. Portable unvented propane or natural gas-fired space/room heaters shall be prohibited.

(e) Unvented propane or natural gas-fired space/room heaters shall be prohibited in bedrooms and bathrooms.

(f) Space/room heaters shall be properly sized for the room or space of installation, but shall not exceed a maximum of 40,000 BTU input per room or space.

(g) In occupancies with an unvented propane or natural gas-fired space/room heater, no less than one listed carbon monoxide detector that is installed in accordance with the manufacturers instructions shall be installed and maintained near the space where the heater is located.

1. Any building wherein the heater is to be installed shall, as a precondition to such installation, have working smoke detectors installed and maintained in accordance with the requirements of 780 CMR (State Board of Building Regulations and Standards) in effect at the time of construction or;
2. If no requirement was in effect at the time of construction the smoke detector shall be compliant and installed as provided for in M.G.L. c. 148, § 26E.

(h) In rooms and buildings served by an unvented propane or natural gas-fired space/room heater, a primary source of heat, which is operable, shall be permanently installed and maintained in the building in accordance with 105 CMR (Department of Public Health).

(i) Sellers of unvented propane or natural gas-fired space/room heaters shall provide to each purchaser a copy of 527 CMR 30.00 upon sale of the unit.

- Installation and repair must be done by a plumber or gas fitter licensed in the Commonwealth of Massachusetts.
- The flexible gas line connector used shall not exceed 36 inches (92 centimeters) in length.
- The individual manual shut-off must be a T-handle type valve.

COMBUSTION AND VENTILATION AIR

This heater shall not be installed in a confined space or unusually tight construction unless provisions are provided for adequate combustion and ventilation air. The heater may be located in unusually tight construction provided the space is unconfined, or if confined, is provided with two permanent openings communicating directly with an additional room(s) of sufficient volume so that the combined volume of all connected spaces meets the criteria for an unconfined space, (National Fuel Gas Code NFPA 54 / ANSI Z223.1 (latest edition), Section on Air for Combustion and Ventilation. Generally 50 ft^3 per 1,000 BTU input of all operating appliances in the space.

The National Fuel Gas Code, ANSI Z223.1/NFPA 54-latest edition defines a confined space as a space whose volume is less than 50 cubic feet per 1000 Btu per hour (4.8 m^3 per kW) of the aggregate input rating of all appliances installed in that space and an unconfined space as a space whose volume is not less than 50 cubic feet per 1000 Btu per hour (4.8 m^3 per kW) of the aggregate input rating of all appliances installed in that space.

Rooms communicating directly with the space in which the appliances are installed, through openings not furnished with doors, are considered a part of the unconfined space.

Unusually tight construction is defined as construction where:

a. Wall and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating or one perm (6 x 10-11 kg per pa-sec-m2) or less with openings gasketed or sealed;

b. Weather stripping has been added on operable windows and doors; and

c. Caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical, and gas lines, and at other openings.

Use the following equations to determine if you have a confined or unconfined space.

1. Determine the volume of space — ft^3.
Length x Width x Height = _____ ft^3
(Include adjoining rooms with doorless passageways or ventilation grills between rooms).
Example: 24' (L) x 16' (W) x 8' (H) = 3072 ft^3

2. Divide the volume of space by 50 ft^3 to determine the maximum BTU/Hr the space can support.
(volume of space – ft^3) / 50 ft^3 = (Maximum BTU/Hr the space can support)
Example: 3072 ft^3 / 50 ft^3 = 61.44
or 61,440 BTU/Hr the space can support.

3. Add the BTU/Hr of <u>all</u> the fuel burning appliances in the space.

Vent-Free Heater	_____	BTU/Hr
Gas Appliance #1*	_____	BTU/Hr
Gas Appliance #2	+_____	BTU/Hr
Total =	_____	BTU/Hr

Example:

Vent-Free Heater	36,000	BTU/Hr
Gas Appliance #1 (water heater)	35,000	BTU/Hr
Total =	71,000	BTU/Hr

* Do not include Direct-Vent Gas Appliances. Direct-Vent is sealed combustion and draws combustion air from the outdoors.

4. Compare the maximum BTU/Hr the space can support with the actual amount of BTU/Hr used.

_____ BTU/Hr
(max. the space can support)
_____ BTU/Hr
(actual amount of BTU/Hr used)

Example:
61,440 BTU/Hr
(max. the space can support)
71,000 BTU/Hr
(actual amount of BTU/Hr used)

The space in the above example is a confined space because the actual BTU/Hr used is more than the maximum BTU/Hr the space can support. You must provide additional fresh air.

Your options are:

a. Rework equations adding the space of adjoining room(s). If the extra volume provides an unconfined space, then remove door or add ventilation grills between rooms. Refer to National Fuel Gas Code, ANSI Z223.1 - latest edition, Section on Air for Combustion and Ventilation.
b. Vent room directly to the outdoors. Refer to National Fuel Gas Code, ANSI Z223.1 - latest edition, Section on Air for Combustion and Ventilation.
c. Install a lower BTU/Hr appliance, such as a 24,000 BTU/Hr, to make the area an unconfined space.

If the actual BTU/Hr used is less than the maximum BTU/Hr the space can support, then the space is an unconfined space. You will need no additional fresh air ventilation for an unconfined space.

⚠ WARNING

If the area in which the heater may be operated is smaller than that defined as an unconfined space or if the building is of unusually tight construction, you must provide adequate combustion and ventilation air by one of the methods described in the National Fuel Gas Code, ANSI Z223.1, Section on Air for Combustion and Ventilation or applicable local codes.

PREINSTALLATION

⚠ WARNING

Before installing in a solid fuel burning fireplace, the chimney flue and firebox must be cleaned of soot, creosote, ashes and loose paint by a qualified chimney cleaner.

⚠ CAUTION

Appliances create warm air currents. These currents move heat to wall surfaces next to appliance. Installing appliance next to vinyl or cloth wall coverings or operating appliance where impurities in the air (such as tobacco smoke) exists, may discolor walls.

Note: *Illustrations shown in this manual reflect "typical" installations with nominal dimensions and are for reference only. Actual installations may vary due to individual design preferences. However, always maintain minimum clearances to combustible materials and do not violate any specific installation requirements. Refer to* ***Figures 2 through 8*** *for clearances.*

Note: *The following steps represent the normal sequence of installation. Each installation is unique, however, and might require a different sequence.*

- Turn off gas supply to the fireplace or firebox.
- Position appliance in fireplace or firebox.
- Connect gas line.
- Secure appliance.
- Operate the appliance and check operation.
- Maintain adequate clearances for accessibility for purposes of servicing and proper operation.
- Minimum clearances include any projections such as shelves, window sills, mantels, spacers/standoffs or surfaces to combustible construction etc. above the appliance. Paint or lacquer used to finish the mantel must be heat resistant in order to avoid discoloration.

Check Gas Type

This appliance can only be connected to the gas type specified on the appliance rating plate. This appliance can not be modified in the field for a different gas type. If the gas supply differs, DO NOT INSTALL the appliance. Contact your dealer to obtain the correct appliance.

CLEARANCES

⚠ WARNING

Do not install this gas appliance:
- **In sleeping quarters, bathrooms, or a recreational vehicle.**
- **Where curtains, furniture, clothing or other flammable objects are less than 42" from the front of the gas appliance.**
- **In high traffic areas.**
- **In windy or drafty areas.**

VENT FREE APPLICATIONS

WHEN INSTALLED IN A VENT-FREE FIREBOX, IF THE CLEARANCES SHOWN ON PAGES 7 & 8 OF THIS MANUAL ARE GREATER THAN THE CLEARANCES FOR THE VENT-FREE FIREBOX, THE LESSER CLEARANCES OF THE VENT-FREE FIREBOX APPLY.

Ensure the minimum clearances shown in ***Figures 2 through 8*** are maintained. Left and right clearances are determined when facing the front of the appliance.

Follow these instructions carefully to ensure safe installation. Failure to follow these requirements may create a fire hazard.

Step 1. Sidewall Clearances: The sides of the fireplace opening must be at least 16" from any combustible side wall (***Figure 2***).

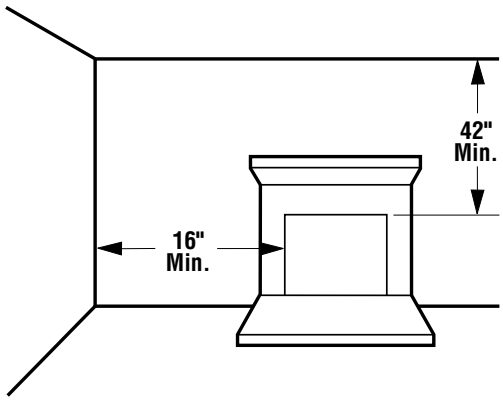


Figure 2 - Clearances

Step 2. Ceiling Clearance: The ceiling must be at least 42" from the top of the appliance opening (***Figure 2***).

Step 3. Noncombustible materials (minimum requirements): To install the appliance without wood mantels, shelves or other combustible projections directly above the opening of the fireplace (firebox) refer to ***Figure 3 and Table 1***. Note that at least 8" of noncombustible material must be installed above the appliances described in this manual.

Noncombustible materials, such as slate and marble, must be at least 1/2" thick.

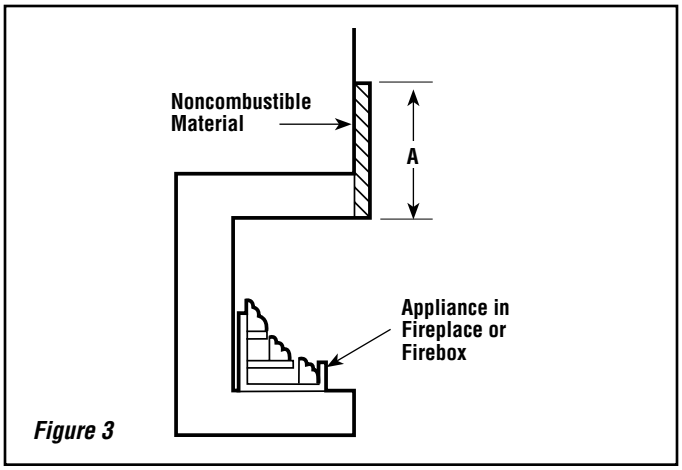


Figure 3

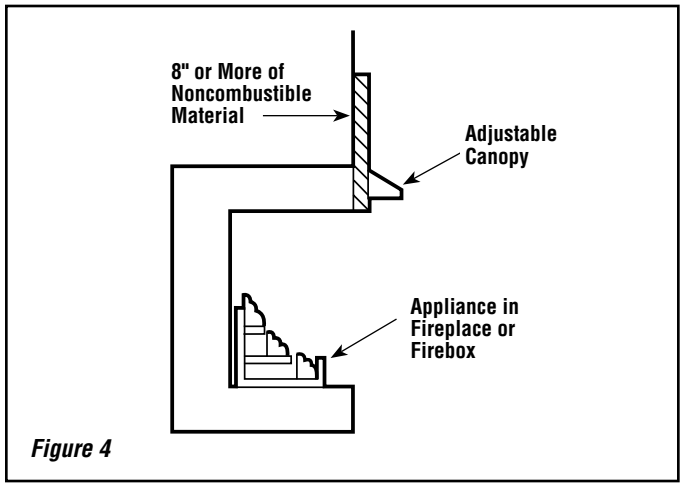


Figure 4

Noncombustible Material Requirements with No Mantel Installed	
(A) Noncombustible Material Measurement	**Requirements for Safe Installation**
12" or more	Adjustable canopy not required.
8" minimum to 12"	Install adjustable canopy.
Less than 8"	Extend noncombustible material to at least 8" and install adjustable canopy (***Figure 4***). OR Extend noncombustible material to a height of at least 12".

Table 1

Noncombustible Material Heights and Mantel Location	
(A) Noncombustible Material Measurement	**Requirements for Safe Installation with Wood Mantel, Shelf or Other Combustible Projection**
12" or more	Adjustable canopy not required. Observe profiles shown in ***Figure 5***.
8" minimum to 12"	Install adjustable canopy and observe profiles shown in ***Figure 4***. or Extend heat resistant material to at least 12" and observe profiles shown in ***Figure 3 and 5***.

Table 2

Step 4. Wood mantel, shelf or combustible projection requirements: To install a wood mantel, shelf or other combustible projection directly above the fireplace (firebox), refer to ***Table 2*** and to ***Figures 5 and 6*** for installation profiles.

If your mantel profile is unsafe, you may either:

- Raise the mantel to an acceptable height, or
- Remove the mantel.

Example: *The bottom of the mantel may project from the wall a maximum of 2-1/2" at a minimum of 28" above the opening. The top shelf of the mantel may project a maximum of 6" at a minimum of 34-1/2" above the opening.*

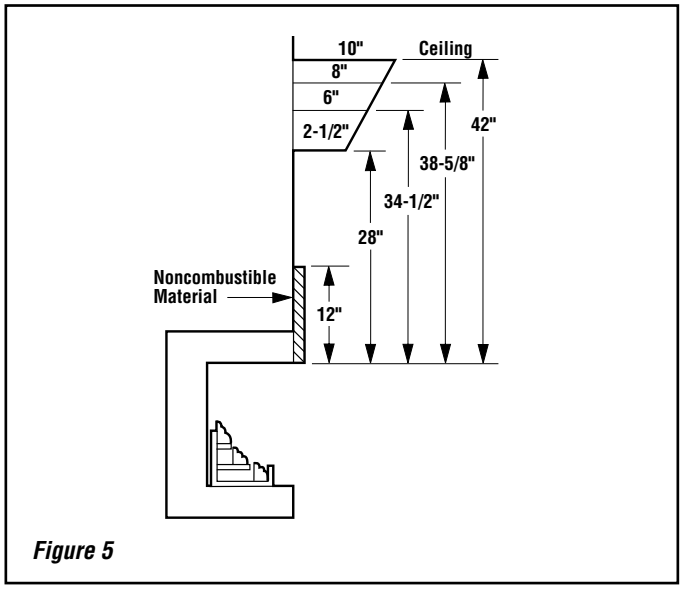


Figure 5

NOTE: DIAGRAMS AND ILLUSTRATIONS ARE NOT TO SCALE.

Example: *The bottom of the mantel may project from the wall a maximum of 2-1/2" at a minimum of 8" above the opening. The top shelf of the mantel may project a maximum of 6" at a minimum of 14-1/2" above the opening.*

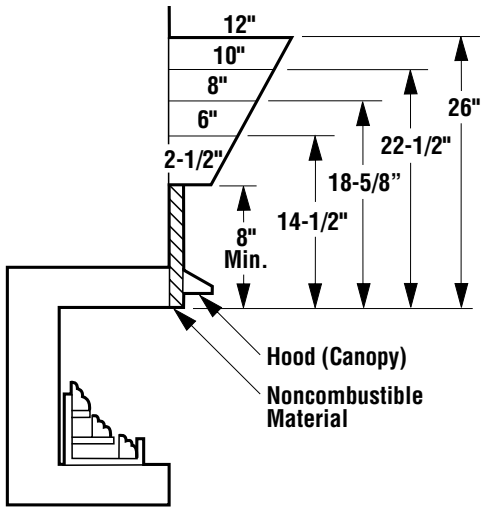


Figure 6

Step 5. Floor clearance: If combustible flooring materials, such as carpeting or asphalt tile, are to be located within 14" of the fireplace or firebox opening, the appliance base must be at least 5" above the combustible flooring material *(**Figure 7**)*.

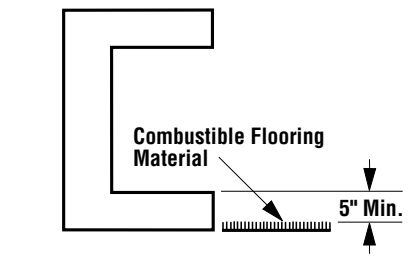


Figure 7

The appliance base may be lower than 5" above the combustible flooring materials if the combustible flooring materials are more than 14" from the fireplace or firebox opening *(**Figure 8**)*.

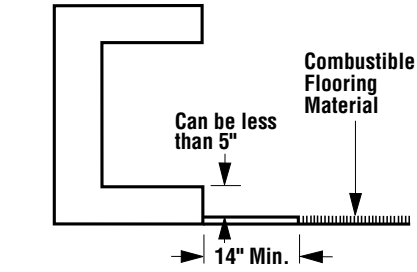


Figure 8

NOTE: DIAGRAMS AND ILLUSTRATIONS ARE NOT TO SCALE.

INSTALLATION

⚠ WARNINGS

- **Do not use a blower insert, heat exchanger insert or other accessory not approved for use with this heater.**
- **Installed decorative glass door enclosures must be fully opened when operating this dual-listed gas appliance.**
- **Special care is required if you are installing the unit into a sunken fireplace. You must raise the fireplace floor to allow access to gas log controls. This will ensure adequate air flow and guard against sooting. Raise the fireplace floor using noncombustible materials.**

Any outside air ducts and/or ash dumps in the fireplace shall be permanently closed at time of appliance installation.

A qualified gas appliance installer must install this dual-listed appliance.

Check gas type: The gas supply must be the same as stated on the appliance's rating plate. If the gas supply is different, DO NOT INSTALL the appliance. Contact your dealer for the correct model.

Step 1. Unpack Appliance - Remove appliance from carton. Cut tie-wires holding ember bed rear log to the base. Unwrap foam packaging from ember bed rear log.

Step 2. Place Ember Bed Rear Log – Place the ember bed rear log with ember chunks facing the front of the appliance such that the middle grate bar aligns with the notch in the top of the ember piece. Push the ember bed rear log toward the front of the unit until it touches the lip on the base and cannot go any further.

Step 3. Placement of Appliance – Center the appliance in the fireplace or firebox. Make certain the grate front feet sit inside the front edge of the fireplace or firebox, and that there is adequate clearance around the appliance for access and operation.

Step 4. Connecting Gas Line – A qualified gas appliance installer must connect the dual-listed gas appliance to the gas supply.

Step 5. Place Logs – See log placement on ***Page 10***.

Consult all local codes.

Route gas line using techniques and materials prescribed by local and/or national codes. Only use 1/2" or greater pipe size to allow full gas volume to the gas fireplace. Undue pressure loss will occur if the pipe is too small.

An ANSI approved manual shut-off valve and union must be installed upstream of the appliance within the fireplace cavity when rigid pipe is used.

IMPORTANT: HOLD APPLIANCE REGULATOR WITH A WRENCH TO PREVENT MOVEMENT WHEN CONNECTING TO INLET PIPING

An external regulator must be used on all propane (L.P.G.) appliances, in addition to the regulator fitted to the appliance, to reduce the supply tank pressure to 13" W.C. (maximum).

⚠ WARNING

Connecting directly to an unregulated propane tank may cause an explosion.

The appliance gas inlet connection is 3/8" NPT at the regulator/valve, located on the left side facing the appliance. If a right side connection is required, the connection pipe may be piped under the rear of the appliance to end at the left hand side for connection to the inlet.

When tightening up the joint to the regulator hold the regulator securely with a wrench to prevent the regulator from moving.

Checking Gas Connections: Test all gas joints from the gas meter to the gas appliance regulator for leaks after completing connection.

⚠ WARNING

Never use an open flame to check for leaks.

Turn on gas supply and test for gas leaks using a gas leak test solution (also referred to as bubble leak solution). ***Note:*** Using a soapy water solution (50% dish soap, 50% water) is an effective leak test solution but it is not recommended, because the soap residue that is left on the pipes/fittings can result in corrosion over time.

A. Light the appliance (refer to the lighting instructions label attached to the control valve or see ***Page 17***).
B. Brush all joints and connections with the gas leak test solution to check for leaks. If bubbles are formed, or gas odor is detected, turn the gas control knob (off/pilot/on) to the "OFF" position. Either tighten or refasten the leaking connection, then retest as described above.
C. When the gas lines are tested and leak free be sure to rinse off the leak testing solution.
D. Turn on burner then observe the individual tongues of flame on the burner. Make sure all ports are open and producing flame evenly across the burner. If any ports are blocked, or partially blocked, clean out the ports.

Gas Pressure Check

The appliance regulator controls the burner pressure which should be checked at the pressure test point (1/8" NPT plugged tap) located on the millivolt control valve itself, identified OUT for the manifold side and IN for inlet pressure (*see **Figure 9***). Ensure operating pressures are within the limits specified in the technical chart on ***Page 16***.

The pressure should be checked with the gas appliance burning and the control set to high.

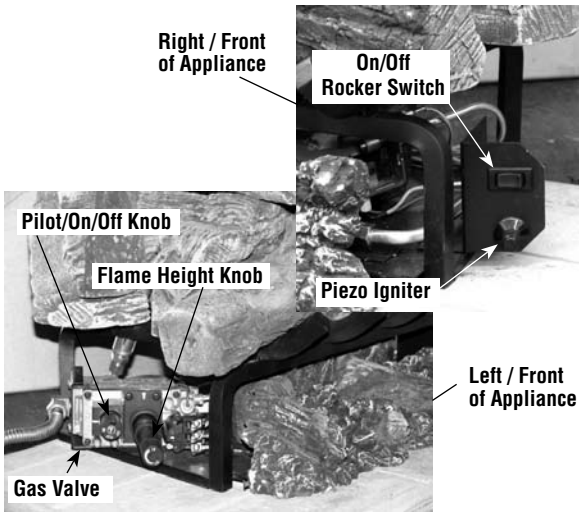


Figure 9

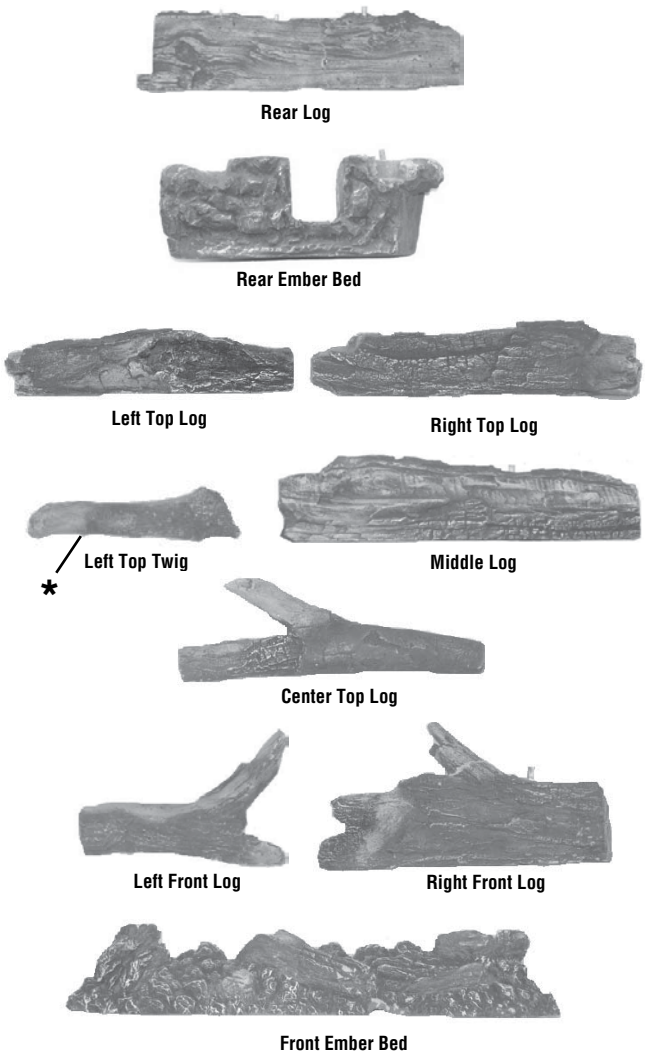
Replace the test point plug after pressure measurement ensuring no gas leaks.

Step 4. PLACING THE LOGS

⚠ WARNINGS

Do not add extra logs or ornaments such as pine cones, vermiculite or rock wool. Using these added items can cause sooting.

Do not place any lava rock on logs or burners. This may cause sooting. Only place lava rock on floor of fireplace.



**** The twig indicated is included in the 24" and 30" log sets only.***
• The 30" log set also includes 2 ember chunks (shown in Figure 18b)

Figure 10 - Log Set

LOG PLACEMENT INSTRUCTIONS

1. Place rear ember bed as shown in ***Figure 11***.

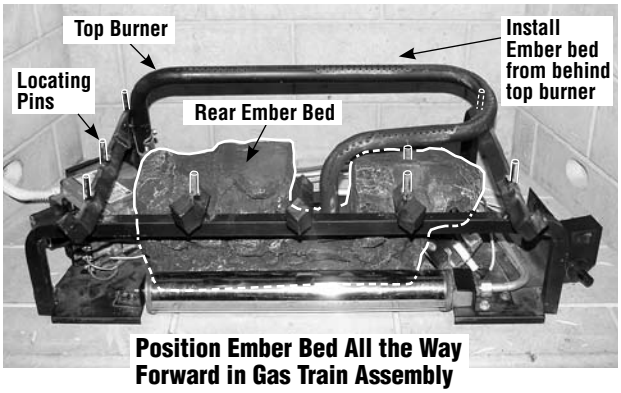

Top Burner
Install Ember bed from behind top burner
Locating Pins
Rear Ember Bed
Position Ember Bed All the Way Forward in Gas Train Assembly

Figure 11 - Install Rear Ember Bed

2. Place rear log onto the two rear grate locating pins as shown in ***Figure 12*** *(the locating pins are outlined in* ***Figure 11****)*.

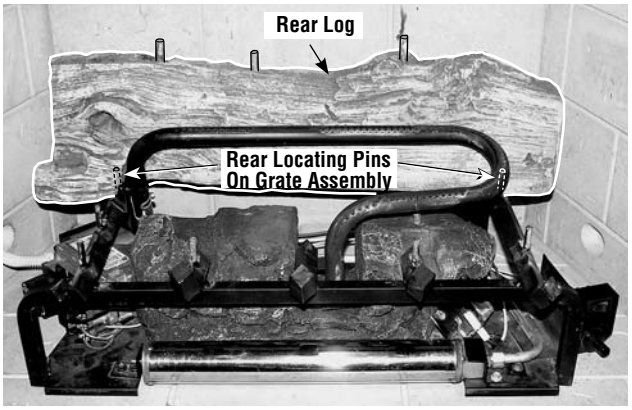


Figure 12 - Install Rear Log

3. Place middle log onto left middle grate locating pin and the rear ember bed locating pin as shown in ***Figure 13***.

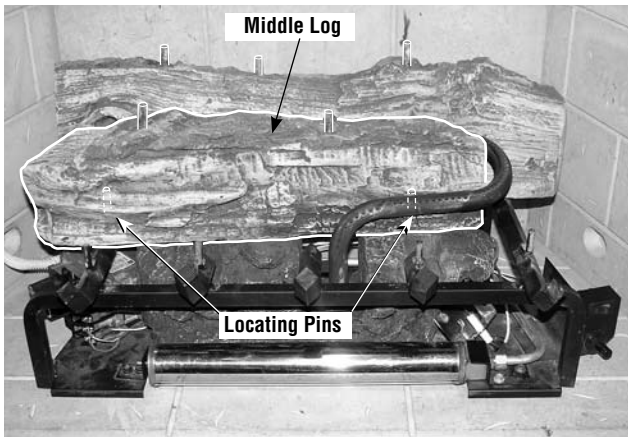


Figure 13 - Install Middle Log

4. Place left and right front logs onto front grate locating pins as shown in ***Figure 14***.

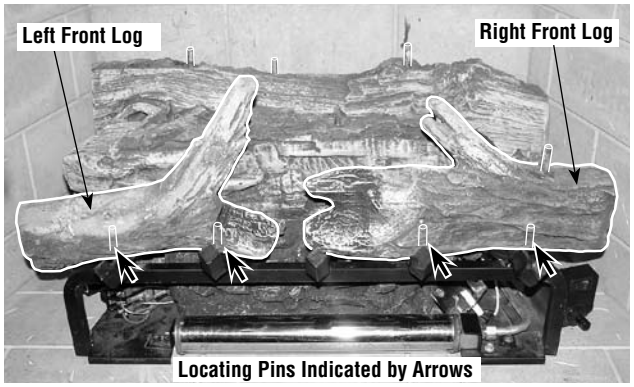


Figure 14 - Install Left and Right Front Logs

5. Place left top log onto rear log and middle log locating pins as shown in ***Figure 15***.

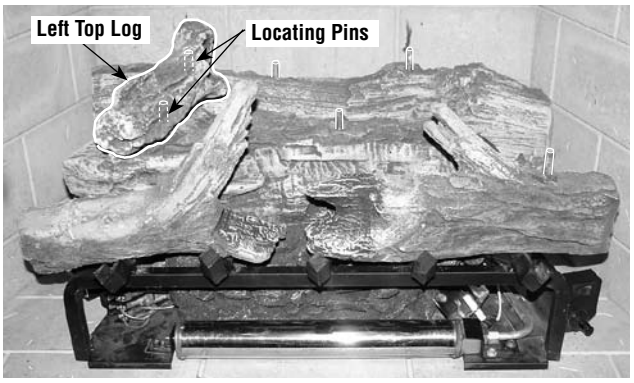


Figure 15 - Install Left Top Log

6. Place the center top log onto the rear log locating pin and middle log locating pin as shown in ***Figure 16***.

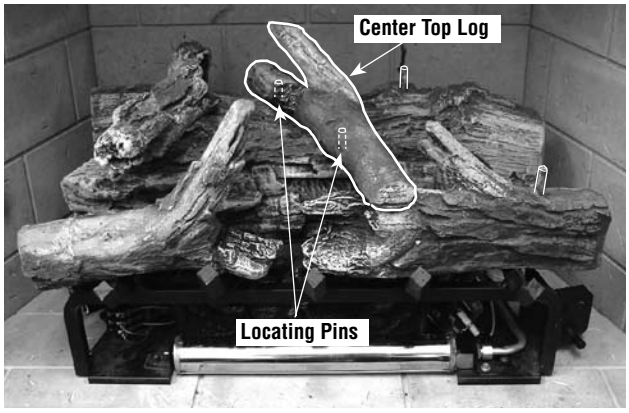


Figure 16 - Install Top Center Log

NOTE: DIAGRAMS AND ILLUSTRATIONS ARE NOT TO SCALE.

7. Place the right top log onto rear log locating pin and the right front log locating pin as shown in ***Figure 17***.

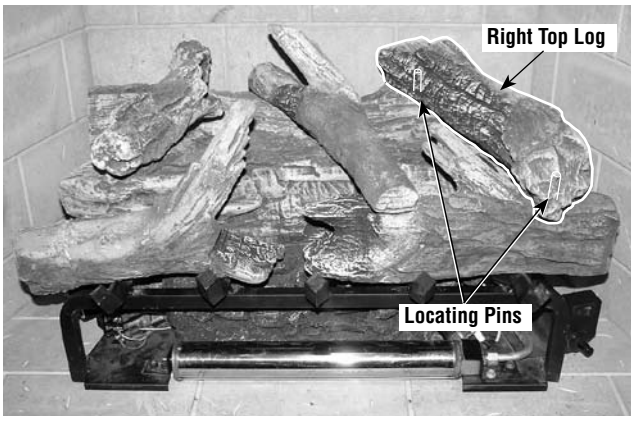


Figure 17 - Install Right Top Log

8. Place Left Top Twig (24" and 30" models only) onto corresponding notch on rear log as shown in ***Figure 18A***. The front of the Left Top Twig should be up against and behind the left top log.

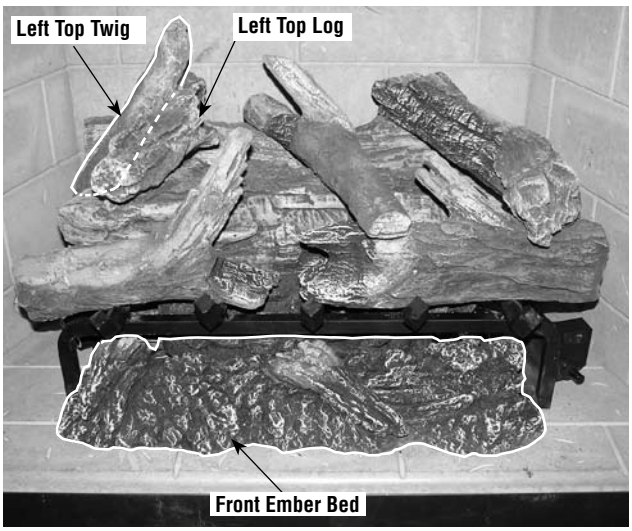


Figure 18A - Install Left Top Twig

9. Place the front ember bed log as shown in ***Figures 18A and 18B***.

Figure 18B - Completed Installation

NOTE: DIAGRAMS AND ILLUSTRATIONS ARE NOT TO SCALE.

⚠ WARNING

Failure to position the parts in accordance with *Figure 21* or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.

Periodically check the positioning of all logs.

Flame Appearance

REFER TO THE OPERATING INSTRUCTIONS LOCATED AT THE BACK OF THIS MANUAL BEFORE LIGHTING THE APPLIANCE TO OBSERVE THE FLAMES.

Flames from the pilot burner should be visually checked as soon as the appliance is installed. In addition a periodic visual check of the flames should be made. The pilot flame should always be present when the appliance is in operation *(**Figure 19**)*.

⚠ WARNING

No adjustments are to be made to the ODS pilot system. Tampering with this system can be extremely hazardous.

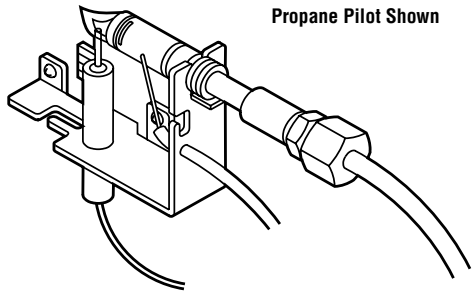


Figure 19 - Correct Pilot Flame

An incorrect pilot flame pattern is shown in ***Figure 20***. This pilot flame will cause the thermocouple to cool. When the thermocouple cools, the log set will shut off. If pilot flame pattern is incorrect, or if log set shuts off, contact your service technician.

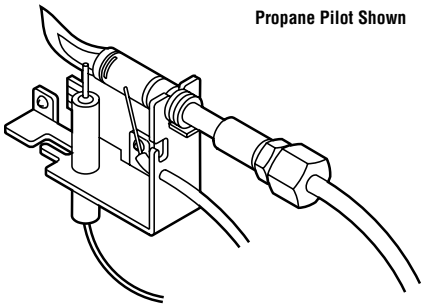


Figure 20 - Incorrect Pilot Flame

In normal operation, at full rate, after 15 minutes the following flame appearance should be observed:

Burner And Flame Characteristics

The Shadowdance™ Gas Log Set features a new concept in integrated burner and log design. The flames from the burner travel horizontally through the log set and emerge at the knot holes.

The flames are slightly blue off the burner and as they progress through the log set, they change to a light yellow color. Yellow decorative flames are visible as the flames exit the log set.

When the log set is first lit, the flame may be entirely blue. Light yellow flame will form at the top of the logs after several minutes of operation.

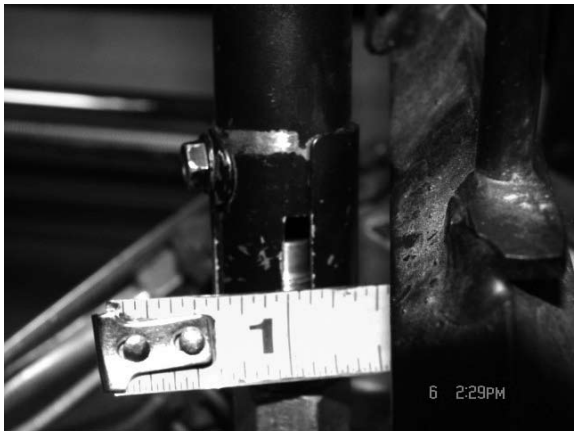
The base of the log set and the underside of the top log glows a brilliant red. For an example of the log set, see ***Figure 21***.

Figure 21 - Proper Burner Flame Appearance

Top Burner Air Shutter Adjustment Procedure

1. If you have blue flame or the top burner is not carrying over and burning on all ports, the air shutter may need to be adjusted to 1/8" gap for both Natural and Propane gas.
2. Check to see if the air shutter is set to 1/8" opening (see ***Figure 22***). The air shutter is located on the rear left side of the appliance.
3. If the air shutter opening is more than 1/8" please loosen the air shutter screw and close completely which will set it to the 1/8" opening.

Note: In some instances, propane appliances may need to be adjusted from the standard factory setting. DO NOT open the air shutter greater than 1/4".



Using a 1/4" wrench loosen setscrew and adjust air shutter to 1/8" gap

Figure 22 - Top Burner Air Shutter Gap - 1/8" for NG & LP

NOTE: DIAGRAMS AND ILLUSTRATIONS ARE NOT TO SCALE.

OPERATION AND CARE OF YOUR APPLIANCE

1. **Appliance operation may be controlled through the ON/OFF unit rocker switch, located in the bottom front of the appliance or through an optional remote control**.
2. When lit for the first time, the appliance will emit an odor for an hour or two. This is due to the "burn-in" of the internal paints and lubricants used in the manufacturing process. For the first few hours, operate the appliance with doors and windows open to encourage the dissipation of odor.

CLEANING AND SERVICING

⚠ WARNING

Turn off the appliance and allow to cool before cleaning.

Verify proper operation after servicing.

⚠ WARNING

You must keep control areas, burners and circulating air passageways of appliance clean. Failure to keep the primary air opening(s) of the burner(s) clear may result in sooting and property damage. Inspect these areas of appliance before each use. Have appliance inspected yearly by a qualified service person. Appliance may need more frequent cleaning due to excessive lint form carpeting, bedding material, etc.

Only limited cleaning will be required under the normal use of the appliance. Dust the front grate, the top of the piezo cover and the control knob occasionally. Do not use cleaning fluids to clean the logs or any other part of the appliance.

Remove the log set, gently handling at each end. Use a vacuum cleaner to remove loose particles from the base and from around the burners. Gloves are recommended to prevent the fibers from pricking your skin. If the skin is pricked, wash gently with soap and water. Replace the log set.

If, after a period of use, the flames start to exhibit unusual shapes and behavior, if there is any evidence of soot formation, blue tipping of the flames, or any strong odors, or the burners fail to ignite smoothly, then the burner holes may require some cleaning. If this happens, it is preferable to contact your nearest authorized service technician to get the appliance serviced.

WARRANTY

Your gas appliance is covered by a limited three year warranty. You will find a copy of the warranty accompanying this manual. Please read the warranty to be familiar with its coverage.

Retain this manual. File it with your other documents for future reference.

REPLACEMENT PARTS

An expanded view of the appliance with numbered parts and a parts list can be found on ***Page 19***. All parts should be ordered through your distributor or dealer. Parts will be shipped at prevailing prices at time of order.

When ordering repair parts, always give the following information:
1. The model number of the appliance.
2. The serial number of the appliance.
3. The part number.
4. The description of the part.
5. The quantity required.
6. The installation date of the appliance.

If you encounter any problems or have any questions concerning the installation of this dual-listed gas appliance, please contact your distributor. For the name of your nearest distributor contact:

LENNOX HEARTH PRODUCTS
1110 West Taft Avenue
Orange, CA 92865
visit us at www.Lennox.com

PRODUCT REFERENCE INFORMATION

We recommend that you record the following important information about your fireplace. Please contact your Lennox dealer for any questions or concerns. For the number of your nearest Lennox dealer, please call 1-800-9-LENNOX.

Your Appliance's Model Number _____

Your Appliance's Serial Number_____

The Date On Which Your Appliance Was Installed _____

The Type of Gas Your Appliance Uses _____

Your Dealer's Name _____

ACCESSORY COMPONENTS

All options are available in kit form, are easy to install and are packaged complete with all required parts and instructions. Some of the option kits need to be fitted prior to completing the installation of the appliance. The following paragraphs detail the kit options available.

The appliances covered in this manual are heater rated and produce a great deal of heat. Decorative brass trim pieces and hoods may tarnish because of their proximity to the heater opening and front face. Tarnishing of these pieces is normal, unavoidable and should be expected.

ACCESSORY COMPONENTS

Standard Remote Control System (Model RCL)

The Model RCL (Standard) Remote Control System, features a simplistic on/off control function for the fireplace. This model includes a hand-held transmitter, a remote receiver with wall-mount cover plate and all hardware required to install the unit. The remote receiver can be wall or hearth mounted.

The transmitter has ON and OFF functions that are activated by pressing either button on the face of the transmitter. When a button on the transmitter is pressed, a signal light illuminates briefly to verify that a signal has been sent.

The Model RCL is designed to operate with all millivolt ignition systems, as well as electronic ignition systems. It may be installed with use for either natural or propane gas appliances. The RCL offers ease of installation and allows you to execute on-off commands to the log set effortlessly with one simple motion.

The Model RCL comes complete with detailed operating instructions.

Remote Control System - Standard		
Cat. No.	Model No.	Description
H0249	RCL	Remote Control Kit - Standard

Deluxe Remote Control System (Model RC-STAT)

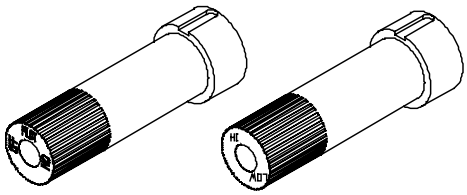
The Model RCL-T (Deluxe) Remote Control System has all of the features of the standard system along with an added easy to read LCD screen which presents access to many enhancements, including; battery power level indicator, timer, mode of operation, thermostatic display including room temperature in either metric of English units, flame indicator and clock. Fully programmable, the Model RCL-T allows for virtual command over nearly all operational and temperature variables, using the hand held remote control transmitter.

The Model RCL-T (Deluxe) remote control system is installed in the same manner as the standard system, may be operated with electronic and millivolt systems with either natural or propane gas. The RCL-T comes complete with detailed operating instructions.

Remote Control System - Deluxe		
Cat. No.	Model No.	Description
H0251	RCL-T	Remote Control Kit - Deluxe

Knob Extensions

Knob extensions for both the On/Off and High/Low functions are available.



Knob Extensions	
Cat. No.	Description
60J74	Knob Extension, Pilot/On/Off
60J95	Knob Extension, Hi/Lo

NOTE: DIAGRAMS AND ILLUSTRATIONS ARE NOT TO SCALE.

ACCESSORY COMPONENTS (CONTINUED)

Gas Log Sets

18" Gas Log Set

24" Gas Log Set

30" Gas Log Set

Gas Log Sets*		
Cat. No.	Model No.	Description
H5137	LSVFSD-18 Logs	Shadowdance™ 18" Logs
H5138	LSVFSD-24 Logs	Shadowdance 24" Logs
H5139	LSVFSD-30 Logs	Shadowdance 30" Logs

*** For use with gas train models LSVFSD-NG and LSVFSD-LP only**

Charred Ember Kit

An optional 2-piece Charred Ember Kit is available to enhance the beauty of the log set.

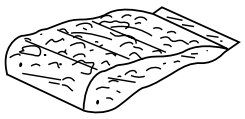
Left Charred Ember **Right Charred Ember**

Charred Ember Kit*		
Cat. No.	Model No.	Description
H6894	LSVFSD-CEK	Charred Ember Kit

*** This kit is standard with the 30" Log Set**

Bag of Volcanic Stone

Volcanic stone is available for use with these appliances.



Decorative Volcanic Stone		
Cat. No.	Model No.	Description
80L42	FDVS	Bag of Volcanic Stone

NOTE: DIAGRAMS AND ILLUSTRATIONS ARE NOT TO SCALE.

CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.

If any of the original wire as supplied must be replaced, it must be replaced with Type AWM 105°C – 18 GA. wire.

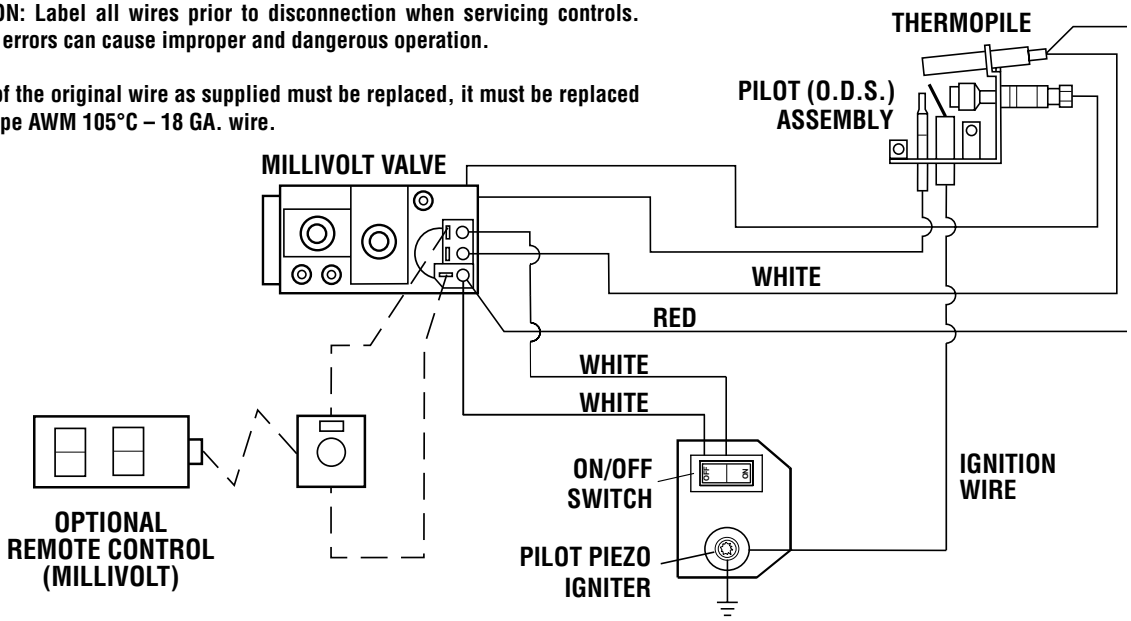


Figure 23 - Millivolt Wiring Diagram

Vented/Unvented Gas Log Appliance Technical Chart For Millivolt Log Set									
Model No.	**BTU/HR Input**	**Gas Type**	**Ignition**	**Regulator Pressure Setting**	**Gas Inlet Pressure***	**Valve Operation**	**Orifice Size Top**	**Orifice Size Bottom**	**Air Shutter Opening**
LSVFSD-NG	**37,000 24,500**	Natural	Piezo	1.6 – 3.5" W.C.	Max. 10.5" W.C. Min. 5.0" W.C.	Millivolt	.094"	.071"	1/8"
LSVFSD-LP	**37,000 28,000**	Propane/ LPG	Piezo	6.3 – 10.0" W.C.	Max. 13" W.C. Min. 11" W.C.	Millivolt	.055"	.046"	1/8"
Table 3				* For the purpose of input adjustment.					

NOTE: DIAGRAMS AND ILLUSTRATIONS ARE NOT TO SCALE.

LIGHTING INSTRUCTIONS – MILLIVOLT

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING: IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

A. This appliance has a pilot which must be lighted with a piezo igniter. When lighting the pilot, follow these instructions exactly.

B. BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS

- **Extinguish any open flame.**
- **Open windows.**
- **Do not light any appliance.**
- **Do not touch any electrical switches.**
- **Do not use any phone in your building.**
- **Immediately call your gas supplier from a neighbor's phone.**
- **If your gas supplier cannot be reached, call the fire department.**

C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, do not try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or an explosion.

D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

LIGHTING INSTRUCTIONS

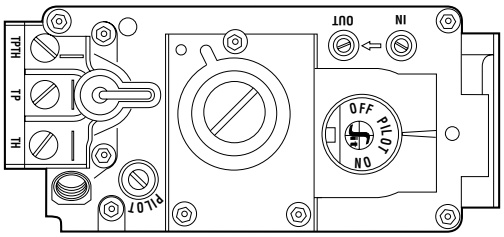
1. STOP! Read the safety information above on this page.

2. Access the lower control compartment.

3. Turn remote wall switch to "OFF."

4. Verify main line shut-off valve is open.

5. Push in gas control knob slightly and turn clockwise to "OFF."



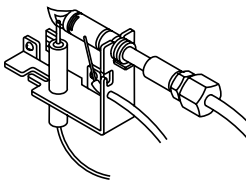
Note: *Knob cannot be turned from "PILOT" to "OFF" unless the knob is pushed in slightly. Do not force.*

6. Wait five (5) minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information above on this page. If you do not smell gas, go to the next step.

7. Push in gas control knob slightly and turn counterclockwise to "PILOT."

8. Push in control knob all the way and hold in. Immediately light the pilot by triggering the spark igniter (pushing the button) until pilot lights. Continue to hold the control knob in for about 1-1/2 minutes after the pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 through 8.

- If knob does not pop up when released, stop and immediately call your service technician or gas supplier.
- If pilot will not stay lit after several tries, turn the control knob to "OFF" and call your service technician or gas supplier.



9. Turn gas control knob counterclockwise to "ON."

10. Close lower control compartment.

TO TURN OFF GAS TO APPLIANCE

1. Turn remote wall switch "OFF." The pilot will remain lit for normal service.

2. For complete shutdown, turn remote wall switch to "OFF."

3. Access the lower control compartment.

4. Depress gas control knob slightly and turn clockwise to "OFF." Do not force.

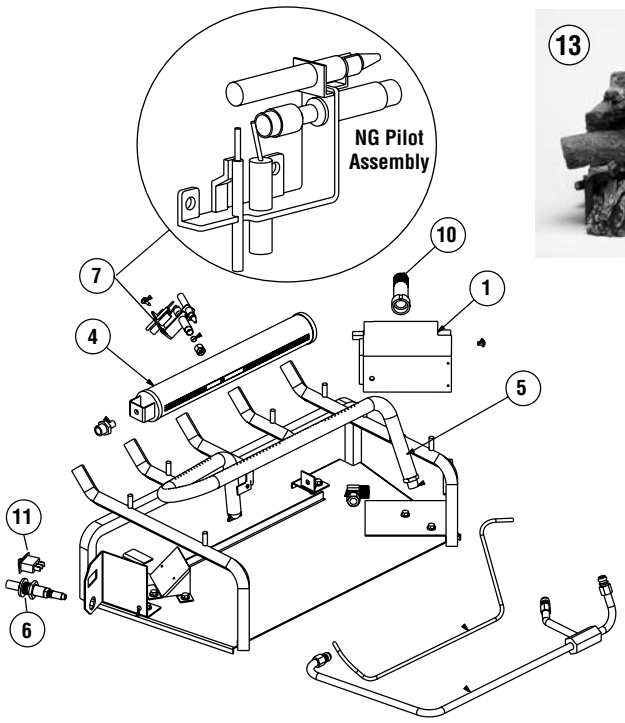
5. Close lower control compartment.

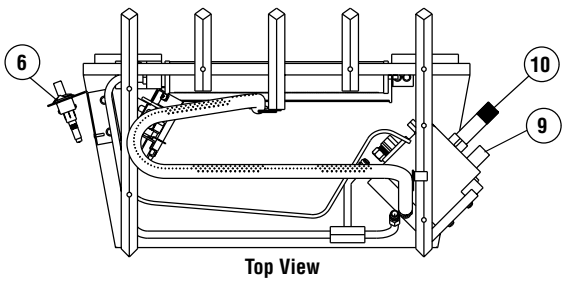
VENTED/UNVENTED TROUBLESHOOTING GUIDE

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
1. When igniter button is pressed, there is no spark at ODS/pilot.	**A.** Igniter electrode positioned wrong.	Replace igniter.
	B. Igniter electrode broken.	Replace igniter.
	C. Igniter electrode not connected to igniter cable.	Reconnect igniter cable.
	D. Igniter cable pinched or wet.	Free igniter cable if pinched by any metal or tubing. Keep igniter cable dry.
	E. Piezo igniter nut is loose.	Tighten nut.
	F. Broken igniter cable.	Replace igniter cable.
	G. Bad piezo igniter.	Replace piezo igniter.
2. Heater produces unwanted odors.	**A.** Heater burning vapors from paint, hair spray, glues, etc.	Ventilate room. Stop using odor-causing products while fireplace is running.
	B. Gas leak. See Warning statement on the front page.	Locate and correct all leaks.
3. Heater shuts off in use (ODS operates).	**A.** Not enough fresh air is available.	Open window and/or door for ventilation.
	B. Low line pressure.	Contact local gas company.
	C. ODS/pilot is partially clogged.	Clean ODS/pilot.
4. Gas odor even when control knob is in "OFF" position.	**A.** Gas leak. See Warning statement on the front page.	Locate and correct all leaks (see *Checking Gas Connections*, ***Page 9***).
	B. Control valve defective.	Replace control valve.
5. When igniter button is pressed, there is spark at ODS/pilot, but no ignition.	**A.** Gas supply turned off or manual shut-off valve closed.	Turn on gas supply or open manual shut-off valve.
	B. Control knob not in "PILOT" position.	Turn control knob to pilot position.
	C. Control knob not pressed in while in "PILOT" position.	Press in control knob while in pilot position.
	D. Air in gas lines when installed.	Continue holding down control knob. Repeat igniting operation until air is removed.
	E. ODS/pilot is clogged.	Replace ODS/pilot assembly or get it serviced.
	F. Gas regulator setting is not correct.	Replace gas regulator.
6. ODS/pilot lights, but flame goes out when control knob is released.	**A.** Control knob not fully pressed in.	Press in control knob fully.
	B. Control knob not pressed in long enough.	After ODS/pilot lights, keep control knob pressed in 30 seconds.
	C. Manual shut-off valve not fully open.	Fully open manual shut-off valve.
	D. Thermocouple connection loose at control valve.	Hand tighten until snug, then tighten 1/4 turn more.
	E. Pilot flame not touching thermocouple, which allows thermocouple to cool, causing pilot flame to go out. This problem could be caused by one or both of the following: 1). Low gas pressure 2). Dirty or partially clogged ODS/pilot	1). Contact local gas company. 2). Replace ODS/pilot assembly or get pilot serviced.
	F. Thermocouple damaged.	Replace thermocouple.
	G. Control valve damaged.	Replace control valve.
7. Burner does not light after ODS/pilot is lit.	**A.** Burner orifice is clogged.	Clean burner or replace burner orifice.
	B. Burner orifice diameter is too small.	Replace burner orifice.
	C. Inlet gas pressure is too low.	Contact local gas company.
8. Delayed ignition of burner.	**A.** Manifold pressure is too low.	Contact local gas company.
	B. Burner orifice is clogged.	Clean burner or replace burner orifice.
9. Burner backfiring during combustion.	**A.** Burner orifice is clogged or damaged.	Clean burner or replace burner orifice.
	B. Burner damaged.	Replace burner.
	C. Gas regulator defective.	Replace gas regulator.
10. Slight smoke or odor during initial operation.	**A.** Vapors from paint or curing process of logs.	Problem will stop after a few hours of operation. Superior recommends running the heater with the excess ventilation for the first few hours.
11. Heater produces a whistling noise when burner is lit.	**A.** Turning control knob to "HI" position when burner is cold.	Turn control knob to "LO" position and let warm up for a minute.
	B. Air in gas line.	Operate burner until air is removed from line. Have gas line checked by local gas company.
	C. Dirty or partially clogged burner orifice.	Clean burner or replace burner orifice.
12. The flame appearance is blue.	**A.** Improper Air Shutter Adjustment.	Adjust air shutter per instructions on *Page 12*.
13. When burner lights, flame does not carry completely across the top burner.	**B.** Improper Air Shutter Adjustment.	Adjust air shutter per instructions on *Page 12*.

REPLACEMENT PARTS LIST (MILLIVOLT) - SHADOWDANCE™ SERIES

Replacement Parts List (Millivolt) - Shadowdance™ Series, Models LSVFSD-NG and LSVFSD-LP (18" and 24")		
No.	**Description**	**Catalog Number**
1.	Valve, Millivolt (Natural)	H1203
	Valve, Millivolt (Propane, L.P.G.)	H4278
2.	Ember Bed Front	H3910
3.	Ember Bed Rear	H3911
4.	Bottom Burner	H3912
5.	Top Burner	H3913
6.	Piezo Igniter	10K86
7.	ODS Pilot Assembly, Millivolt (Natural)	H4113
8.	ODS Pilot Assembly, Millivolt (Propane, L.P.G.)	H4170
9.	Knob Extension, Pilot/On/Off	60J74
10.	Knob Extension, Hi/Lo	60J95
11.	On/Off Switch	27K30
12.	Piezo Igniter Cable	H4868
13	18" Log Assembly	H5137
14	24" Log Assembly	H5138
15	30" Log Assembly	H5139





Top View

18" Gas Log Set

24" Gas Log Set

30" Gas Log Set

⚠ WARNING

Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this heater may result in property damage or personal injury.

NOTE: DIAGRAMS AND ILLUSTRATIONS ARE NOT TO SCALE.

Lennox Hearth Products reserves the right to make changes at any time, without notice, in design, materials, specifications, prices and also to discontinue colors, styles and products. Consult your local distributor for fireplace code information.

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